

some impulse—in a desire to please, or a propensity to obey. Her playing, in the automatic character of its execution, precisely resembles the movements that are guided by our reflexes." nervous system, or the instinctive behaviour of an insect, and we appear to be quite justified in assuming that in these cases also behind the elaborate functioning of nerves and nerve-cells, there lies an impulse which dictates the general line of conduct. The action of the stomach that seems to be stimulated by the touch of food is driven by the impulse of self-preservation: the bee, in fashioning its comb, is guided by a special directive instinct, but is *impelled* by its constructive, or reproductive instinct. This view is directly opposed to the very general hypothesis that life may be defined in terms of chemical compounds or of bodily organs. But it is very strongly borne out by the fact that the most elementary kinds of plants and animals lead a complicated life of sensation and reaction without the assistance of any organs whatever.

§

It is desirable to insist again upon the distinction that is drawn, in this analysis, between two very different kinds of instinct—the one a set of *impulsive*, the other a set of *directive* energies. It is unfortunate that the term "instinct" is associated with both of them. Impulsive instinct urges us along certain general lines of action:

thus the impulse of self-preservation
prompts us
to eat when hungry. to run away
when in fear.
the impulse of reproduction prompts us
to protect
our young. Directive instinct is
concerned with
particular methods of action : thus the
directive
instinct of the horse limits its diet to
herbage
and grain; that of the bee enables it to
construct